CLAIMS

What is claimed is:

1   1.   A method for processing a one-to-one request from a client program to

2   multiple instances of a server program over a protocol, said method comprising:

3   transferring said request from said client program to a multiplexor;

4   generating a plurality of instances of said request using said multiplexor,

5   wherein each of said instances of said request corresponds to a different instance

6   of said server program;

7   transferring said instances of said request from said multiplexor to said

8   instances of said server program;

9   transferring a plurality of responses from said instances of said server

10   program to said multiplexor

11   converting said responses to a uniform response; and transferring said

12   uniform response to said client program.

1   2.   The method in claim 1, further comprising specifying target instances of

2   said server program to form a fan out target list, to which said instances of said

3   request will be transferred.

AM9-99-0158   22

1   3.   The method in claim 1, wherein said converting comprises selecting an

2   operation to combine said responses. .

1   4.   The method in claim 3, wherein said operation comprises one of listing said

2   responses, aggregating said responses, adding said responses, preparing a subset of

3   said responses, identifying a maximum of said responses, identifying a minimum

4   of said responses, and averaging said responses.

1   5.   The method in claim 1, wherein said multiplexor automatically creates said

2   instances of said request.

1   6.   The method in claim 1, wherein said client program, said instances of said

2   server program, and said protocol are unaffected by said method.

1   7.   The method in claim 1, wherein said unified response has an instance

2   corresponding to said client program.

1   8.   A method of processing a request from a client program to multiple

2   instances of a server program over a protocol, said method comprising:

3   modifying said request to create multiple instances of said request, each of

4   said instances of said request corresponding to a single instance of said server

5   program;

6   transferring said instances of said request to corresponding ones of said

7 instances of said server program; and

8   modifying and combining responses to said request from said instances of

9 said server program to create a unified response.

1 9.   The method in claim 8, wherein a multiplexor alters said request to comply

2 with each instance of said server program.

1 10. The method in claim 9, wherein said multiplexor automatically creates said

2 instances of said request.

1 11. The method in claim 8, further comprising specifying target instances of

2 said server program to form a fan out target list, to which said instances of said

3 request will be transferred.

1 12. The method in claim 8, wherein said converting comprises selecting an

2 operation to combine said responses.

1 13. The method in claim 12, wherein said operation comprises one of listing

2 said responses, aggregating said responses, adding said responses, preparing a

3 subset of said responses, identifying a maximum of said responses, identifying a

4 minimum of said responses, and averaging said responses.

AM9-99-0158   24

1   14.   The method in claim 8, wherein said client program, said instances of said

2   server program, and said protocol are unaffected by said method.

1   15.   The method in claim 8, wherein said unified response has an instance

2   corresponding to said client program.

1   16.   A method of using a computer program to process a one-to-one request

2   from a client program to multiple instances of a server program over a protocol,

3   said method comprising:

4   using said computer program to transfer said request from said client

5   program to a multiplexor;

6   using said computer program to generate a plurality of instances of said

7   request using said multiplexor, wherein each of said instances of said request

8   corresponds to a different instance of said server program;

9   using said computer program to transfer said instances of said request from

10   said multiplexor to said instances of said server program;

11   using said computer program to transfer a plurality of responses from said

12   instances of said server program to said multiplexor;

13   using said computer program to convert said responses to a uniform

14   response; and

15   using said computer program to transfer said uniform response to said

16   client program.

1 17.   The method in claim 16, further comprising using said computer program

2 to specify target instances of said server program to form a fan out target list, to

3 which said request will be transferred.

1 18.   The method in claim 16, wherein said using said computer program to

2 convert comprises using said computer program to select an operation to combine

3 said responses.

1 19.   The method in claim 18, wherein said operation comprises one of listing

2 said responses, aggregating said responses, adding said responses, preparing a

3 subset of said responses, identifying a maximum of said responses, identifying a

4 minimum of said responses, and averaging said responses.

1 20.   The method in claim 16, wherein said multiplexor automatically creates

2 said instances of said request.

1 21.   The method in claim 16, wherein said client program, said instances of said

2 server program, and said protocol are unaffected by said computer program.

1 22.   The method in claim 16, wherein said unified response has an instance

2 corresponding to said client program.

1   23.   A program storage device readable by machine, tangibly embodying a

2   program of instructions executable by the machine to perform a method for

3   processing a one-to-one request from a client program to multiple instances of a

4   server program over a protocol, said method comprising:

5   transferring said request from said client program to a multiplexor;

6   generating a plurality of instances of said request using said multiplexor,

7   wherein each of said instances of said request corresponds to a different instance of

8   said server program;

9   transferring said instances of said request from said multiplexor to said

10   instances of said server program;

11   transferring a plurality of responses from said instances of said server

12   program to said multiplexor;

13   converting said responses to a uniform response; and

14   transferring said uniform response to said client program.

1   24.   The program storage device in claim 23, further comprising specifying

2   target instances of said server program to form a fan out target list, to which said

3   instances of said request will be transferred.

1   25.   The program storage device in claim 23, wherein said converting comprises

2   selecting an operation to combine said responses.

1   26.   The program storage device in claim 25, wherein said operation comprises

2   one of listing said responses, aggregating said responses, adding said responses,

3   preparing a subset of said responses, identifying a maximum of said responses,

4   identifying a minimum of said responses, and averaging said responses.

1   27.   The program storage device in claim 23, wherein said multiplexor

2   automatically creates said instances of said request.

1   28.   The program storage device in claim 23, wherein said client program, said

2   instances of said server program, and said protocol are unaffected by said method.

1   29.   The program storage device in claim 23, wherein said unified response has

2   an instance corresponding to said client program.

1   30.   A multiplexor for processing a one-to-one request from a client program to

2   multiple instances of a server program over a protocol, said multiplexor

3   comprising:

4   a converter for generating a plurality of instances of said request, wherein

5   each of said instances of said request corresponds to a different instance of said

6   server program; and

7   a response combiner for converting said responses to a uniform response.

1   31.   The multiplexor in claim 30, wherein said response combiner selects an

2   operation to combine said responses.

1   32.   The multiplexor in claim 31, wherein said operation comprises one of

2   listing said responses, aggregating said responses, adding said responses, preparing

3   a subset of said responses, identifying a maximum of said responses, identifying a

4   minimum of said responses, and averaging said responses.

1   33.   The multiplexor in claim 30, wherein said converter automatically creates

2   said instances of said request upon receipt of said request.

1   34.   The multiplexor in claim 30, wherein said client program, said instances of

2   said server program, and said protocol are unaffected by said multiplexor.

1   35.   The multiplexor in claim 30, wherein said unified response has an instance

2   corresponding to said client program.